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***Avatar* Simulation in 3Ts: Techne, Trance, Transformation**

What transformations govern the connection between user and avatar?—N. Katherine Hayles, *How We Became Posthuman* (27)

We have to transform ourselves yet again into something that has not yet existed on this planet before, a kind of techno-indigenous people.—James Cameron, “A Message from Pandora”

After the double and the android, the hologram and the cyborg, the avatar is a transitional subject born from the link that both connects and disconnects competing worlds. Neither fully human nor fully virtual, yet animated by both human and virtual links, the hybrid figure of the avatar emerges from the interface where the human self and the digital other, nature and techne, reality and simulation, meet, clash, and above all *reflect* (on) each other. This is what emerges from James Cameron’s *Avatar* (2009), a mesmerizing box-office smash that recounts the adventures of Jake Sully (Sam Worthington), a paraplegic ex-marine who travels to a futuristic moon called Pandora in order to pilot a genetically modified humanoid that is neither fully himself nor fully foreign to himself but, rather, an “avatar” of the self. I would like to suggest that despite its natural, eco-friendly, and seemingly transparent message about “what happens when modernist humans meet Gaya” (Latour 471), the film *Avatar* reflects contemporary preoccupations with posthuman subjects born from the interface where the human self and the virtual avatar face each other without realistically mirroring one another.

If we take a step back from the rather familiar plot describing a native, authentic population exploited by a greedy, modernist civilization, we notice that *Avatar* relies on computer-generated imagery (CGI) in order to think through the transition from the world of reality to that of virtual reality. The “natural” world of Pandora is haunted by the specter of simulation, which is not to say that it is based on a realistic form of imitation. In a way, what Jean Baudrillard says of the “hologram” in *Simulacra and Simulation* (1981) still captures the transfer of identity at play in the “avatar” simulation: this simulacrum, he says, “gives us the emotion, the vertigo to transfer to the other side of our body, to the side of the double, a luminous clone, or dead twin who was never born in our stead” (157).¹ The avatar simulation reloads this emotion of vertigo. As Jake transfers to the other side of his body, he impersonates a double, luminous, CG humanoid modeled on a dead twin who was born in order to be replaced. Despite the proliferation of mimetic doubles in the formation of this hybrid subject, *Avatar* transgresses the laws of imitation. It is not a simple representation (or *mimesis*) of a real, natural world, but it brings into being a CGI simulation of reality. In this sense, the paraplegic hero of *Avatar* is metaphorically representative of a posthuman

subject who lives out a second life via the medium of a CG avatar that uploads subjectivity into the sphere of the virtual.

Unlike the hyperreal sphere of simulacra, however, in *Avatar* the phantom of mimesis returns to haunt, perhaps even animate, the world of simulation.² This futuristic film does not simply take spectators through a magical 3D looking-glass to CG bodies without origins, living out virtual second lives disconnected from their first. Rather, it urges us to think through the *transition* from the real world to the world of simulation via the medium of CG avatars that remain *connected* to human, or, better, posthuman bodies. Thus, if the *message* of *Avatar* is about the human conflict with ecology, I suggest that its *medium* highlights the posthuman link with virtuality. What appears to be a return to a primitive, natural world functions as a futuristic mirror that reflects, in a non-realistic way, contemporary preoccupations about the links connecting the body and the soul, consciousness and unconsciousness, primitive communities and virtual communities. In short, *Avatar* moves beyond *either/or* solutions that pit nature against technology, organic reality against virtual reality, and primitivism against (post)modernism to reflect on the *both-and* interface that connects the human self to the virtual avatar.

The 3Ts of “techne,” “trance,” and “transformation” articulate a third space that goes beyond 3D special effects. Let us put on interdisciplinary glasses in order to dissect the hypermimetic relations that tie an organic society to a network society, archaic rituals to futuristic technologies, and religious trance to virtual trance. At play in the *Avatar* simulation reloaded in 3Ts is a clinical diagnostic of the ups and downs generated by technological (dis)possessions which are currently transforming, via the medium of virtual trance, what it means to be human—in an age that is already posthuman.

Modernist Frame/Virtual Medium. From the opening scene, it is clear that *Avatar* is not only a transparent mirror of the “modernist clash with nature” (Latour 472), but also a modernist representation of this clash that immediately complicates the relation between nature and civilization. In a sense, this futuristic film recuperates a modernist tendency to call attention to the formal mediation at work in fictional representations in order to problematize the relation between fiction and reality, the technological medium and the natural message. Thus, *Avatar* does not simply tell the story of Jake’s initiation into the Na’vi population from an external, omniscient, and linear perspective. Rather, it relies on modernist aesthetic devices that foreground the medium of representation itself. These include the reliance on a participant narrator, the use of a subjective point of view, the disruption of a linear narrative sequence (ellipsis, flashbacks, flashforwards), and the use of an extra-diegetic voiceover as a framing, mediating, and structuring device. Jake’s voiceover is particularly important. It punctuates the film as a whole, reminding viewers that this story set in 2154 is told *a posteriori* from an even more futuristic perspective and that the events we are about to see are actually a representation of events that have already taken place—in a future that is already past.

The use of a framing device to give form to a subjective, retrospective, and self-reflexive narrative is a staple of modernist literary, anthropological, and cinematic texts. From Joseph Conrad's *Heart of Darkness* (1899) to Claude Lévi-Strauss's *Tristes Tropiques* (1955) and Francis Ford Coppola's *Apocalypse Now* (1979), writers, anthropologists, and filmmakers have repeatedly relied on first-person, participant narrators who retrospectively retell the story of a journey leading to an encounter with the figure of a "primitive" other—who is also a "phantom" of the self. Despite its sf dimension, Cameron's *Avatar* continues this modernist tradition that privileges a subjective over an objective perspective, mediation over immediacy, and representation over presentation. Moreover, in a distant echo of modernist Hollywood classics such as Billy Wilder's *Double Indemnity* (1944) and Alfred Hitchcock's *Rear Window* (1954), *Avatar*'s frame calls attention to the technological medium in order to problematize the relation between the "real" and "fictional" worlds for a disabled protagonist, opening up the virtual possibility that a technologically mediated connection exists between these seemingly antithetical worlds.

The film begins *in medias res*, with an extra-diegetic, ritual song accompanied by percussion music, followed by the appearance of a subjective, disembodied helicopter shot flying over a misty, tropical forest. Spared opening titles, spectators share this subjective perspective and are fully immersed in the exotic landscape. As Jake's voiceover kicks in, we realize that we may actually not be outside, flying above nature, but inside, in the mind of the protagonist, whose "dreams of flying" we see. "I was free," he says. And so are we, as we survey the long shot of the misty forest from his



Figure 1 - *Avatar*, 20th Century Fox Home Video, 2010

oneiric point of view.³ As the camera plunges closer to the trees, however, the music abruptly stops and the voiceover retrospectively comments: "Sooner or later, though, you always have to wake up." Indeed, as Jake wakes up, we see the protagonist framed in an enclosed, claustrophobic capsule within a cold, technological setting that marks the return to the so-called "real" world.

This opening scene foreshadows events that will follow, offering a conceptual entry into the formal double bind that *in-forms* (gives form to) the

entire film. On the one hand, it suggests that in *Avatar* the line dividing dream and reality, nature and technology—also inner and outer experience, the protagonist and the viewers—is thin and porous at best. The initial dream scene anticipates Jake’s upcoming “real” yet simulated flights on dragon-like creatures (or *ikrans*) via his avatar body, which he pilots in a dream-like state from a grey link capsule that recalls the cryo capsule. On the other hand, this opening indicates that the closer to nature the protagonist seems, the farther away from it he actually is; the freer his mind, the more imprisoned his body. The entire structure of *Avatar* is encapsulated in this double movement. Furthermore, the voiceover does not originate from Jake’s voice itself but from a computer-based video log he uses to document, in the mode of an anthropological, self-reflexive journal, his avatar’s experiences on Pandora. We are thus not hearing the protagonist/narrator’s human voice directly but a technological mediation or echo of this voice. This voice retrospectively narrates a representation of a “primitive” population, a re-presentation that is itself mediated by his twin brother’s avatar—that is, by a biogenetically construed double of yet another double.



Figure 2 - *Avatar*, 20th Century Fox Home Video, 2010

Viewers who see this film as a celebration of a return to a pure state of nature are right concerning the explicit message of the film; yet attention to the medium immediately brackets this message, suspending “nature” in multiple layers of formal and technological mediation. The narrative voice of modernist texts has been replaced by a computer-based voice, narrative distance has been supplemented by technological distance, and in the process we find ourselves very far removed from “nature.” Even if we accept, in the willing suspension of disbelief *Avatar* induces, the “reality” of this simulated world, viewers are at least five or six times removed from its natural referent. The state of nature on Pandora is seen through the eyes of a remotely controlled hybrid body, modeled on the DNA of the protagonist’s twin brother (double), and it is linked—via a dream-like form of neural communication—to the mind of the protagonist, who subsequently records his “natural” experiences on the diegetic video log we view. If we add to this that the making of *Avatar* relies on “hyperhaptic” (Ross 387) 3D/CGI that are not only

modeled on real actors but also track, via real-time performance capture, the movements and facial expressions of these actors, then we begin to sense the staggering degree of *mimetic meditation* that is at play in the film.⁴ As William Brown notes, there is a “simulacral nature of digital images” constitutive of a new “perceptual realism” (27) in the digital age that still requires delineation. This new “realism,” we should add, is not mediated by a simple notion of *mimesis* understood as analogic imitation of reality. Rather, it is predicated on a complex view of hypermimesis understood as a digitally oriented, self-reflexive, and densely layered form of mediation between natural reality and virtual reality, human imitation and avatar simulation.⁵ In light of the heterogeneous forms of *hypermimesis* that in-form the aesthetic texture of the entire film, it is perhaps no exaggeration to say that under the facade of a return to nature, *Avatar* promotes one of the most hyper-mediated representations of “nature” in the history of cinema.

Rather than celebrating *Avatar* as a transparent image of a primitive state of nature, or denouncing the tension between the medium and the message as “contradictory” (Briones 314), let us ask more self-reflective questions: how does the technological medium (the frame) relate to the natural message (what is framed)? Is the medium part of the problem *Avatar* denounces, or is it part of the cure? If this medium is both poisonous and therapeutic, what is the hypermimetic logic that informs this technical pathology?

Technical Pathologies: “One Life Ends, Another Begins.” The choice of a paraplegic hero for a futuristic action movie may initially seem surprising. Since *Avatar* was constructed to reach as wide an audience as possible (which it did), we might have expected a protagonist neatly fitting normative standards of bodily appearance. Such a choice would have been in line with a Hollywood blockbuster geared towards eliciting a generalized mass identification (economic reasons); it would have provided viewers with an “everyman” figure representative of a shared postmodern condition (representative reasons). But perhaps the film wanted to avoid such easy identifications. After all, the “Message from Pandora” is against the postmodern, consumer-oriented, technologized world. Yet it is doubtful that a noble, ethical message in favor of disenfranchised indigenous subjects and in defense of the ecosphere could generate a globalized mass-identification that would break all box-office records. It is thus perhaps on the side of the medium, with its computerized mediation that connects a disabled human body to a fully enabled avatar body, that we should look for the significant supplement that justifies this choice. At the dawn of the cyborg era, theorists suggested that the figure of the paraplegic occupies a privileged and somewhat revealing position of the “hybrid” condition generated by the link between human bodies and new technologies.⁶ In this sense, a divided human body already connected to a machine is more susceptible to technical forms of hybridization that affect posthuman culture as a whole.

Considered from the perspective of the medium, Jake’s disabled condition represents an increasing human dependency on computer-based forms of

communication endemic to “network societies” (Manuel Castells’s term). Information technologies pervade the human environment on Pandora. From the video log that frames the narrative to the digital screens within the frame, from 3D virtual maps to multiple information platforms, *Avatar* shows an information-centered, network society that reflects our contemporary dependence on computer-based interfaces to be in touch with others, the world, and perhaps “ourselves.” These new channels of communication also virtually shape the physical life of human bodies. Scientists, researchers, managers, and administrators are represented sitting on office chairs endowed with wheels, like Jake’s wheelchair, and avatar pilots are literally immobilized in the link capsule.



Figure 3 - *Avatar*, 20th Century Fox Home Video, 2010

This posthuman loss of touch with the body stretches well beyond the visual economy of the film to affect the bodies of spectators as well. Whether we are playing computer games, surfing the web, talking to a video log, piloting an avatar, watching *Avatar* or, less fashionably, writing an article on *Avatar*, this film reminds us that the body can momentarily, or not so momentarily, be put on hold.

What is true of personal bodies is equally true of collective bodies. In *Avatar* technological media are responsible for the atomization of the entire body politic. The opening scene alerts us to this loss of social bonds. As Jake’s dream of flying gives way to the reality of spatial travel, we see a multiplicity of isolated individuals in a futuristic environment that is reminiscent of our own technologically oriented societies (one thinks of Japanese capsule hotels). Jake’s metallic capsule, in which he travels in “cryo-sleep,” has its mirroring counterpart in the “link” capsule from which he will later “pilot” his avatar in a state of trance or hypnotic sleep. Seen from this angle, Jake is an everyman figure who exemplifies a posthuman, virtual alienation whereby subjects spend much of their lives in narrow spaces that disconnect them from others, nature, and the world, living in a dream-like and somewhat paralyzed condition. As the coffin-like shape of the link capsule intimates, computerized technologies are responsible for a form of social death that buries the human subject within the enclosing walls of the network society.

Yet technology does not only bring about a death of the real body; it also offers a dream-like rebirth in an avatar body. This paradoxical movement of death and rebirth informs the iconography of the film and suggests that techne is as much a poison as a cure, that is, a *pharmakon*.⁷ Thus as the link capsule closes and Jake's disabled body disappears from our sight (see Fig. 3), his virtual image reappears on a digital interface, suggesting that the vanishing of the original human subject is the necessary condition for a virtual simulacrum to be born. The same network society that generates bodies without operating legs now enables Jake to connect with the affective life of the avatar body and its legs in particular. Somewhat paradoxically, in *Avatar* technology is *both* the medium that paralyzes the body and disconnects it from the material world *and* the medium that animates a walking body and reconnects it to the virtual world: death of man, birth of avatar; this is the "patho(-)logical" trajectory *Avatar* encourages us to diagnose.⁸

The (Dis)possession of Trance: "A Demon in a Fake Body." *Avatar*'s nostalgic representation of indigenous humanoids as a source of authentic values the postmodern self has lost is old fashioned. It not only resurrects Romantic fantasies of the "noble savage" but also recuperates the myth of the organic community, in which subjects are united by bonds of solidarity and sympathy lacking in an individualistic, postindustrial world. The logic of this representation of the primitive other as an inverse image of the (post)modern self is familiar. Just as the industrial revolution generated a mechanized, modernist society that looked back to past, organic societies as a model of social cohesion, so the network revolution generates disconnected, posthuman bodies that nostalgically look back to an organic community in which everything is still connected.



Figure 4 - *Avatar*, 20th Century Fox Home Video, 2010

On a closer look, however, the organic society of the past and the network society of the future are not as opposed as they initially seem. If images of the Na'vi Omaticaya clan gesture back to a communal society understood as living organism, they also gesture forward to a technologized society understood as virtual "network." Professor Augustine (Sigourney Weaver), the head of the Avatar Program, puts it clearly: "It's a network," she says, "a global

network. And the Na'vi can access it.... They can upload and download data-memories." Echoing this point, the Na'vi speak of a "network of energy that flows through all living things." During sacred rituals they plug into other bodies, forming a network of collective (social) bonds, allowing them to "upload" and "download" "data-memories" from their (ancestral) past, an idealization of a natural, organic society that reflects concerns with virtual, network societies.⁹

There is a self-conscious reflexivity at work in *Avatar* revealing contemporary preoccupations with the entrancing effects of digital technologies on the posthuman mind and body. This preoccupation is not new in sf. Donna Haraway noticed that "[t]he trance state experienced by many computer users has become a staple of science-fiction films" (2296), but *Avatar* takes it a step further by going back to the original meaning of trance, an anthropological meaning. It is arguably the first sf film that relies on a past-oriented anthropological account of possession trance in the context of traditional societies to reflect, in a hypermimetic way, a future-oriented entranced dispossession induced by virtual simulations in network societies. Rather than dismissing the religious anthropology intrinsic to the Na'vi's account of trance as a form of "pagan voodoo," let us use it to diagnose the posthuman subject's mesmerizing transition (trance, from Latin *transire*, to pass) to a virtual avatar who is oneself while being someone else.

The first impression is that *Avatar*'s account of trance is archaic. The film emphasizes the communal dimension of rituals, the spiritual effect of rhythmic music, the monotonous, repetitive chanting, as well as the state of mystical participation with the spiritual world of Eywa that ensues. The film even attributes a central place to a feminine shamanistic figure responsible for mediating between the spiritual and the social world along lines that have been familiar to us since classical antiquity. Just as the prophetess at Delphi (or *Pythia*) interpreted the will of Apollo by entering a state of mimetic trance, so the shaman of Pandora (or *Tshahik*) enters an altered state of consciousness in which she is not fully herself and serves to mediate between the spiritual and social worlds. From divination to social communion, collective dances to ritual songs, ecstatic states to the transfer of spirits, *Avatar* mobilizes some of the most distinctive features of what anthropologists call "possession trance."¹⁰ Diagnostically speaking, rituals of possession serve a vital anthropological function: they galvanize the social body by putting it back in touch with the spirit of Eywa, functioning thus as a collective remedy for mimetic pathologies that affect individuals, the community, and the ecosphere as a whole.

Yet the religious anthropology internal to *Avatar*'s account of possession trance is double-faced, insofar as this spiritual medium is as much a cure as it is a sickness, as much a poison as it is a remedy. If rituals of possession trance foster a therapeutic communication with the sacred world of ancestral spirits, the *Tshahik* also relies on the anthropology of trance to diagnose the pathological manifestations of the profane world of human avatars. For the Na'vi, avatars are not themselves; they are possessed by someone other. They

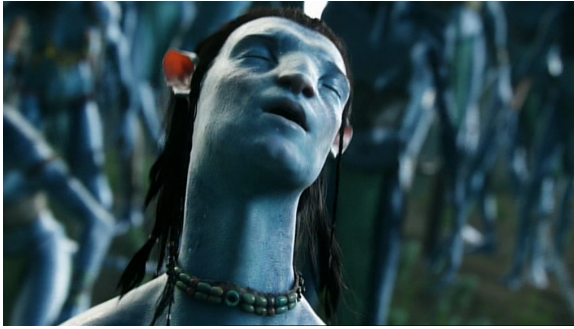


Figure 5 - *Avatar*, 20th Century Fox Home Video, 2010

call them “demons,” using the term in the traditional etymological sense (from Greek, *daimon*, spirit), an evil spirit that mimetically infiltrates the body to possess it and dispossess it of its soul. As Jake is abruptly unplugged from his link with the avatar, his simulacrum falls to the ground, is left unconscious, and is denounced as “a demon in a false body.” Along similar lines, as the *Tshahik* wonders whether Jake’s “insanity can be cured,” she is diagnosing the hybrid figure of the CG avatar as a symptom of a more generalized human pathology that has the technological power to infiltrate Na’vi bodies and take possession of their souls. In short, the (dis)possession of trance functions simultaneously as the poison and the cure, a pathology and a patho-logy.

There is a striking symmetry between the patho(-)logy of techne on the side of humans and the patho(-)logy of trance on the side of the Na’vi. Both techne and trance function as therapy and sickness, as a diagnostic and infectious medium. This mirroring between the double effects of techne and trance should not surprise us. It is the product of the hypermimetic structure of *Avatar*, and this mirroring structure makes us see that the anthropological problematic of trance can be used to reflect on future-oriented, network societies concerned with the technological transition from human to virtual world. In fact, if we consider the religious anthropology at work in *Avatar* as an accurate, self-reflexive, hypermimetic mirror of contemporary network society, then possession trance designates an altered state of consciousness induced by computer-mediated technologies that, for better and worse, have the power to take possession of one’s soul and leave a dispossessed body behind.

The anthropology of trance accounts for the process whereby posthuman subjects take possession of a simulation of the self, piloting a virtual double to live out fuller, more colorful, more embodied, exciting second lives (trance as remedy). Yet the consequence of this transition, *Avatar* suggests, is that while the avatar body is animated and possessed, the posthuman body is immobilized and dispossessed (trance as poison). Just as Jake’s avatar body is left inanimate, deprived of the “demon” that makes him walk when he is unplugged from the “link in progress,” so, on the other side of the mirror, is

Jake's body left unconscious, his soul having passed into his avatar animation. This is where the new riddle of simulation reloads the old problematic of the unconscious.

Unconscious Simulations: "Sealing the Bond." When it comes to the question of consciousness, *Avatar* reveals a mirroring asymmetry in the relation between the human self and the avatar simulacrum, insofar as the coming to consciousness of one depends on the unconscious state of the other. On one side, avatar pilots find themselves in a state of sleep resembling a hypnotic trance. They "relax and let [their] mind[s] go blank," so as to establish the "link" necessary to take possession of their avatar bodies and animate the virtual simulation. Conversely, as avatars go to sleep, the pilots



Figure 6 - *Avatar*, 20th Century Fox Home Video, 2010

wake up in the link capsule, momentarily regaining consciousness, before going to sleep again to rest their real bodies from their simulated experiences. Indeed, full waking consciousness is more the exception than the rule for the protagonists of *Avatar*. The new type of subjectivity they represent is moving away from consciousness, confirming Katharine Hayles's claim that "the posthuman subject is also a postconscious subject" (*Posthuman* 280). The traditional conception of consciousness, in which the subject is present to itself, in control of his/her thoughts and actions, no longer holds true for those caught in the spell of the avatar simulation—if only because, strictly speaking, there is no self fully awake to control. This postconscious subject manages effectively to pilot the body of the avatar s/he remote-operates, indicating that a form of unconscious communication bridges the gap between the self and the net, the human mind and the avatar body.

Avatar's psychological account of the "primitive" other *qua* Na'vi is consistent with the anthropology of possession trance, insofar as it also emphasizes entranced states of consciousness that, in turn, serve as mirrors of technologized postconscious selves. The Na'vi call avatars "dreamwalkers." Both sleeping and walking, these hybrid subjects find themselves in a liminal state that splits subjectivity in two. It relegates the human side to the unconscious sphere of dreams and the avatar side to the conscious sphere of

walking, while at the same time indicating that this simulator could be walking in a dream—or dreaming while walking. Indeed, the term “dreamwalker” nicely joins the dream-like state of the avatar pilot sleeping in a box with the waking state of the avatar walking on Pandora, underscoring the transition between the conscious, walking side and the unconscious, dreaming side.

Given the emphasis on dreams, doubles, and imaginary identifications, we could expect that psychoanalysis might serve as the legendary *via regia* to access the unconscious states that animate the avatar simulation. While it is certainly possible to map dominant theories of the unconscious on to the psychology of the subaltern, I propose to follow the path indicated by the subaltern herself. For instance, we could notice that “dreamwalker” is a variation of “sleepwalker,” naming an altered state of consciousness in which the subject is both present and absent, active and passive. This liminal state of consciousness has been marginalized yet like trance, it was once well known in modernist culture. If we download data-memories from our historical past, we will find that modernists considered somnambulism as a hypnotic trance that animated what I have called the “mimetic unconscious” (*Phantom* 13-19). For our purpose, suffice to say that under hypnosis (from *hypnos*, sleep) the subject is said to be in an unconscious state in which s/he is affectively linked to the pathos of the other, in a bond of mimetic communication that troubles the distinction between self and other, inside and outside, original and copy, and—we may now add—the human ego and the phantom of the ego. *Avatar* recuperates this modernist tradition to offer a diagnostic account of the psychic virtualization of the posthuman subject and, in a hypermimetic turn with which we are now familiar, it does so via the detour of the “primitive” other.

The Na’vi have a specific term to define the psycho-physiological relation between self and others: they call this link *tsaheylu*, “the bond,” a term that denotes an interpersonal psychosomatic tie established through neural queues. Once the bond is “sealed,” the subject not only “feels” the external body of the other but participates in the affective life of the other as if this other were part of the self. Thus, as Neytiri (Zoe Saldana) initiates Jake into the mysteries of the bond, she emphasizes the role of affect as the key to access the animal other: “feel her,” she says, speaking of the body of an equine species called *direhorse* in soft, hushed tones, “feel her heartbeat, feel her strong legs.” That the model of hypnosis underscores this entranced form of communication is made clear by the psycho-physiological effects of this mimetic bond: closure of the eyes, dilation of the pupil, respiratory relaxation, all this represented to the sound of peaceful music contributing to induce an altered state of consciousness. The bond entails a profound intersubjective, neurological communication with the affective system of the other that is felt “inside” through the medium of an affective, bodily experience that induces a light hypnotic trance. In such an altered state, the subject expands its sensorium so as to feel what the other feels. The subject is so intimately linked or, as the hypnotists used to say, in *rapport* with the other that the two nervous systems are wired, generating a mirroring relation in which the neurons of the self are

connected to the neurons of the other. As a result, what the piloting subject thinks inside, the other body performs outside.

This account should not be dismissed as a form of “mystical” participation characteristic of a primitive, pre-logical world. It opens up a theoretical path to account for the interpersonal form of communication that links the posthuman pilot to the virtual avatar and, by metaphorical extension, to the global network as a whole. If we have seen that the organic society has the characteristic of a “network” in which the Na’vi “upload and download data-memories,” we must now add that this process of uploading and downloading takes place via the medium of a USB-like neural link in which the nervous system of a subject is, quite literally, wired into the other and, at ritual times, into the network as a whole. The mirroring link is clear: the seemingly *organic bonds* on the side of the Na’vi are a reflection of *electronic links* on the side of posthumans. Hence, as Jake pilots his avatar in the link capsule, he also finds himself in an altered state of consciousness akin to an hypnotic sleep or trance, in which his nervous system is said to be “connected to” his avatar and communicates inside without the intermediary of language, feeling what the avatar feels. A hypnotic bond with the “natural” other functions as a hypermimetic mirror of this technologized bond with the virtual avatar. What appears to be a mystical and fully organic bond to bodily others in an organic society mirrors the link that wires the modern subject to its CG avatar in a network society.

What emerges from this model of the unconscious is that the avatar pilot is a subject that is not one, in the sense that it is not fully itself but in a state of mimetic communication with a virtual other that is both exterior and interior to the self. The boundaries that divide self and other, the human subject and the avatar simulacrum, break down as the subject is virtually uploaded and downloaded in a global network in which s/he affectively participates in a mesmerizing second life. What matters in such a state of virtual simulation, is not so much the self-enclosed ego—since there is no neat, unitary boundary that frames it. Rather, what matters is the psycho-neurological communication that flows, like energy, between the human self and the virtual other, linking an interior to an exterior experience, the real self to the simulation of the self. To be sure, this communication is not based on a rational, volitional subject but on automatic reflexes that indicate a mirroring and mimetic connection between self and other. “Motor reflexes are looking good” are Dr. Augustine’s first words as Jake manages to pilot his avatar body to catch a juicy fruit on the basis of an automatic psycho-neurological reaction. This automatic gesture is a confirmation that Jake’s “link is stable,” as the scientists say, and that the neurons of his brain have successfully “connected to” the neurons of his avatar’s brain, forming a mimetic continuity that transgresses the line between the self and the avatar, reality and simulation.

Which model of the unconscious informs the avatar simulation? Which form of postconscious communication is at work between the human ego and the virtual alter ego? *Avatar* is in line not only with a modernist conception

of the “mimetic unconscious” based on a hypnotic *rapport* between self and other. It is also in line with contemporary empirical studies in the neurosciences which have discovered that not only in monkeys, but also in humans, “mirror neurons” are responsible for automatic reactions that lead the self to reproduce mimetically the gestures s/he sees the other perform.¹¹ Mirror neurons and the mimetic unconscious in *Avatar* reflect each other as two sides of the same coin. As Jake first connects to his avatar, we see a close-up of holographic representations of the driver’s brain, mirrored by the brain of his avatar, and in a mirroring countermovement we see a close-up Jake’s face as he enters a light hypnosis (or trance) upon which the link (or bond) to the avatar is based.

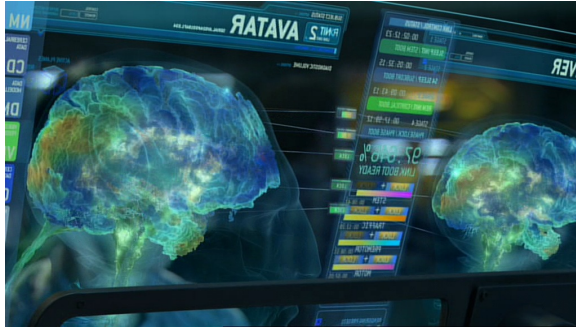


Figure 7 - *Avatar*, 20th Century Fox Home Video, 2010

Neurons that light up in the same area of the brains of the two connected subjects show the neurological stimuli at play in such virtual raptports of simulation. More generally, the hypermimetic structure of *Avatar* makes us see that the mirrored neurological connection between the two brains not only operates in animal or human forms of non-verbal interaction, but they also trigger posthuman forms of virtual interactions with an avatar that is animated by the neurons of the self. The posthuman subject’s mind might indeed “go blank” and enter a light somnambulist state that is no longer in possession of its own consciousness. But it is precisely because of this dispossession that it can activate the unconscious, mimetic reflexes necessary to take possession of its virtual alter ego. Such automatic, unconscious reflexes are the necessary condition to play a computer game skillfully by deftly moving a joystick in such a way as to immediately pull the trigger at the sight of virtual targets on screen. Mimetic reactions, gamers tend to agree, are more effective if the subject is fully immersed in the world of simulation, entering an altered state that makes it imaginatively possible to animate a second life and feel, in mirroring moves, what the avatar supposedly feels.¹² Even at the level of the unconscious, then, *Avatar* looks back to the past in order to better see future transformations that lie ahead, hyper-mimetic transformations that are responsible for turning humans into simulations of humans and material worlds into fictional ones.

Trans-Formation: How the “True World” Became a Fable. What did this journey through the looking glass of *hypermimesis*—from representation to possession trance and from hypnosis to mirror neurons—teach us about the posthuman subject that emerges from the *Avatar* simulation? Is the avatar simulation a step ahead in an evolution that will eventually allow us to leave the human body behind, as academic gamers argue?¹³ Or is it rather a step back to a form of idealism in which the mind is privileged over the body, as philosophers familiar with metaphysical symptoms suggest?¹⁴ Given the double-sided structure of the film, we should avoid unilateral final diagnoses. Having explored the technological, anthropological, and psychological sides of mimetic (dis)possessions, let us flesh out some of the ontological implications of a subject that is neither itself nor someone other but suspended in the no-man’s land of the avatar simulation.

This contradictory double-movement from the real to the virtual, from immanence to transcendence, and from the self to the net is in line with the contradictory meanings of the term “avatar.” On the one hand, this term has ancient Hindu origins and designates the movement of passing down characteristics of an incarnation of a god. In this sense, the movement *Avatar* designates is from transcendence to immanence whereby a spirit is *downloaded* so as to take possession of an embodied identity. Yet attention to the medium has also shown that a counter-movement linked to contemporary network societies is simultaneously at play. In computing, according to Wikipedia, “avatar” designates “the graphical representation of the user or the user’s alter ego or character,” a virtual 2D or 3D simulacrum whereby an immanent soul is virtually *uploaded* into the transcendental sphere of the web to pilot a simulacrum of the self. The title *Avatar* is thus well chosen: it reflects the double movement of possession and dispossession that animates the film.

Such (dis)possessions are by now familiar to a generation growing up in network societies in which the real world is being progressively replaced by a virtual world of computer games, blogs, Skype, Facebook, Twitter, and other protean forms of computer-based social media that allow for the development of seemingly more affective and relational second lives. This “hyperreal” world of simulation, as Jean Baudrillard puts it, “is the product of an irradiating synthesis of combinatory models in a hyperspace without atmosphere ... a weightless nebula no longer obeying the law of gravitation of the real” (11). In a sense, then, the CGI of Pandora is precisely such a “hyperspace” without gravitation, animated by fantastic models without origins. What better atmosphere than a green, lush, virtual forest to compensate for the growing desert of the real? Yet *Avatar* is not simply about the green forests of Pandora; it is also about the grey desert of the posthuman condition—or, better, it is about the complex, conflicted, spiraling, and above all *hypermimetic* relation between these two worlds. If the real is partially suspended on Pandora, it is never completely abolished. This also means that the avatar simulation transgresses the logic of hyperreality as Baudrillard understands it, if only because the posthuman world of avatars continues to

depend on human referential bodies to become virtually animated. The hyperreal world of Na'vi continues to depend on a hypermimesis of real actors re-presented via motion capture for the CG simulation to seem more real than reality itself. The avatar simulation does not simply reflect a true and transparent reality, nor does it fully mask the absence of such a reality. Rather, it articulates the relation between two different levels of reality—real and hyperreal, human and posthuman—to portray the hypermimetic symptoms of emerging forms of virtual communication.

To complete our analysis of the real effects of the avatar simulation, we need to reinscribe the vexing relation between the material world and the apparent world in the Platonic and anti-Platonic philosophical tradition to which *Avatar* belongs. In the back and forth between the two worlds, the line between the “real” world and the “dream” world progressively blurs, and an inversion of perspectives takes place which turns the dream world of Pandora into the true world and the real world of humans into the dream world. As Jake reports on his video log, “Everything is backwards now, like out there is the true world and in here is the dream.” This turning point reflects a metaphysical inversion of perspectives. The mythic origins of this metaphysics are familiar. They stretch as far back as Plato’s *Republic* (380 BCE), with its celebration of the true world of ideas over and against the phenomenal “shadows cast from the fire on the wall of [a] cave” (747) that foreshadows the cinematic wall. Conversely, at the other end of metaphysics, Friedrich Nietzsche will famously describe this idealist philosophical tradition in terms of a “history of an error” (485-86). More recently, Hayles recognizes that the posthuman subject in search of an ideal image of itself might lose sight of the body when she states that “[e]mbodiment has been systematically downplayed or erased in the cybernetic construction of the posthuman” (*Posthuman* 4). In many ways, the avatar simulation extends this idealist tendency to negate the human body, warning us that the metaphysical shadows that are at the origins of Western thought might prove to be our final destination.

At the same time, *Avatar* renders this Platonic idea more subtle and more invisible, even as it remains seemingly attainable. This avatar simulation adds another layer of mystification to the metaphysics of mimesis, which can be summarized as follows:

1. mimesis both *mirrors* and *de-forms* a true, ideal world
2. mimesis *re-presents* a true, rational world
3. mimesis entails the *imitatio* of exemplary figures believed to populate a true world
4. mimesis *unmasks* the absence of a true, ideal world, and thus also of an illusory world
5. mimesis is *banned* as there is no relation whatsoever between hyperreal simulations and the real world
6. mimesis *returns* to diagnose the real, hypermimetic symptoms of avatar simulations

With the avatar simulation, the phantom of mimesis returns to haunt posthuman subjectivity; metaphysical specters that were thought to be

unfashionable return to affect and infect the contemporary interfaces. The metaphysical double-movement that gives form to the avatar simulation is insidious but comprehensible. It attempts to mask a transcendental (Platonic) gesture that uploads subjectivity in the ideal sphere of the network through the medium of a virtual alter ego (or avatar), under the cover of an immanent (Nietzschean) gesture that downloads subjectivity through the medium of a seemingly phenomenal incarnation of the self (or avatar). If the medium constantly foregrounds the avatar as a virtual self, urging philosophical physicians to denounce the poisonous side of these digital pathologies, the message shows us the avatar as an ecological self, urging the same physicians to prescribe archaic therapies as the cure for posthuman transformations. Thus, as Jake finally abandons his “true” body in order definitively to transfer his soul to his avatar body, the dream world is already invested with the status of real world. In a sense, then, his human “insanity” has finally been “cured” via a ritual transfer that entails the death of his human body and the birth of his avatar body.



Figure 8 - *Avatar*, 20th Century Fox Home Video, 2010

This is indeed a happy ending which turns the true world into a fable and proposes a world of dreams instead, a dream-world of simulation that is attainable not only for the few but also for the many, who are now increasingly connected to the net. Yet the (dis)possessions internal to *Avatar* are double-sided and remedy can quickly turn into disease. In fact, the final trance whereby Jake is transferred to his avatar simulacrum is but a hypermimetic counterpart of the technological medium whereby computer gamers transfer to virtual avatars by leaving their all-too-human bodies behind. There is a key difference, however: if this “true world” is attainable for Jake living on an imaginary moon, for those of us who are still in Kansas, wired into virtual avatars (playing humans against Na’vi in *Avatar* the videogame, for example) this dream-world remains promised but is never fully attained. *Avatar* reminds us that the transformation necessary to play avatar simulations comes at real, physical price. As Jake’s “dream” life takes precedence over his “true” life, his progressive disembodiment shows that a form of alienating (dis)possession has taken place. This posthuman subject no

longer eats, loses weight, forgets to shave, refuses to shower, and spends more and more time in a semi-trance, virtually uploaded in the transcendental sphere of the avatar simulation.

Jake's decaying human body is symptomatic of a generalized posthuman condition that mistakes the "fable" for the "true world." Despite its narrative trajectory that idealizes virtual forms of simulations, *Avatar* also diagnoses the pathological effects on the body generated by virtual engagements of the mind for subjects who have already begun to migrate to the virtual world. If contemporary critics in the digital humanities tend to downplay the impact on the body of this virtual "exodus," a philosophical analysis of *Avatar* tells a different story. It suggests that without a symbolic investment in a network of meaningful, embodied, communal relations, the body can easily wither and be left behind, while the posthuman soul ascends to the ideal world of virtuality. We are thus given to think that one body will have to die in order for the other to be born; what seems to be an ideal remedy remains a material poison.

The avatar simulation is predicated on hypermimetic transformations that generate a subject in transit. Born in the hybrid third space of the interface, this is a subject that is not one, already double if not multiple, part of a network that uploads subjectivity into the ramified sphere of virtual reality. Thanks to the energy of the network, the avatar is given the possibility to connect to others, partake in virtual communities, and play out a second life that appears more embodied than material ones. Yet *Avatar* also reminds us that this "energy is only borrowed, and that eventually, we shall have to give it back." If we want to secure a body to return to, this is a lesson we must think through, before the avatar simulation is unplugged—and it is time to wake up.

ACKNOWLEDGMENTS

I would like to thank Victor Vuilleumier for friendly and stimulating exchanges, Mondher Kilani for the anthropological stimulus to write this article, and Roelof Overmeer for providing a magical stage to animate the avatar simulation. A first version of this paper was presented at the SAUTE Conference held at the University of Lausanne in 2013. I am grateful for the feedback I received there, to the SNSF for funding my research at Johns Hopkins, as well as to SFS's external readers and to Sherryl Vint for incisive comments that sharpened my argument. My virtual alter ego—to whom this study is dedicated—I thank for animating spectacular flights.

NOTES

1. Unless specified otherwise, all translations from French are the author's.
2. In *The Phantom of the Ego* (2013) I argue that "mimesis" is not confined to realistic representations but that it includes different forms of behavioral imitation (from impersonation to contagion, hypnosis to trance, mimicry to mirror neurons); see 1-19.
3. For a phenomenological account of the viewer's identificatory relation with Jake's opening dream, see Depraz (17-18).
4. On the making of *Avatar*, see Duncan and Fitzpatrick (98-103, 127-235, 240-43).
5. On hypermimesis in sf, see Lawtoo, "The Matrix E-Motion."

6. On paraplegics and technological hybridity, see Haraway (2296); on sf and disability studies, see Allan; for a disability studies reading of *Avatar*, see McReynolds.

7. On Plato's concept of *pharmakon*, see Derrida.

8. Following a Platonic tradition, I define "mimetic patho(-)logy" in the double terms of "vulnerability to mimetic sickness (or pathology)" and "rigor of a logos that dissects different forms of pathos (or patho-logy)" (*Phantom* 7-8).

9. On Pandora as a "network," see Hillis.

10. See Rouget.

11. As neuroscientist Vittorio Gallese explains, "[m]irror neurons fire both when the monkey performs goal-directed motor acts, like grasping objects with the hand and/or mouth, and when it observes similar acts performed by others" (93). On the "monkey see, monkey do" principle in humans, see Iacoboni (chapters 1, 4, and 5).

12. See Hayles, "Flesh and Metal" (300).

13. See Castronova.

14. See Heim, Hillis, and Pierobon.

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ABSTRACT

This article argues that James Cameron's *Avatar* (2009) represents contemporary preoccupations with the "reality" of virtual reality. Rather than reading *Avatar* as a wishful return to a state of nature, this article takes the computer-generated world of Pandora as a self-reflective anthropological, psychological, and ontological mirror of a network society haunted by the specter of what I call "hypermimetic" simulations. Neither fully human nor fully virtual, yet animated by both human and virtual links, the hybrid figure of the avatar emerges from the interface where the indigenous other and the posthuman self, nature and techne, reality and simulation, meet, clash, and, above all, *reflect on* each other.